



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,816	04/02/2004	Jeffrey A. Alvey	010564/00030	9335

25223 7590 12/21/2006
WHITEFORD, TAYLOR & PRESTON, LLP
ATTN: GREGORY M STONE
SEVEN SAINT PAUL STREET
BALTIMORE, MD 21202-1626

EXAMINER

THANH, QUANG D

ART UNIT	PAPER NUMBER
----------	--------------

3771

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/21/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/815,816

Applicant(s)

ALVEY, JEFFREY A.

Examiner

Quang D. Thanh

Art Unit

3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is responsive to the amendment filed on 10/06/06. As directed by the amendment, claim 1 has been amended, claims 7-9 have been cancelled. Thus, claims 1-6 and 10-14 are presently pending in this application.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-6,10-14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6,8-24 of copending Application No. 10/393,346. Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between claim 1 of the instant application and claim 1 of application ('346) lies in the fact that claim 1 of the ('346) application more elements and is thus more specific (e.g. claim 1 of

application ('346) recites the following additional elements: "electrically powered means adapted to move said ambient air"; separately recited first second and third conduits; sensor means and means operatively associated with said sensor means adapted to generate a signal that is adapted to advise a user whether said gas emerging from said filter system has insufficient oxygen to be safely breathable; and means to, in response to said signal, open and/or close said at least one valve). Thus the invention of claim 1 of the ('346) application is in effect a "species" of the "generic" invention of claim 1 of the instant invention. It has been held that the generic invention is "anticipated" by the "species", See *In re Goodman*, 29USPQ2d 2010 (Fed. Cir. 1993). Since claim 1 of the instant application is anticipated by claim 1 of application ('346), it is not patentably distinct from claim 1 of application ('346).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 1-6,10-14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1,3-19 of copending Application No. 10/933,555. Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between claim 1 of the instant application and claim 1 of application ('555) lies in the fact that claim 1 of the ('555) application more elements and is thus more specific (e.g. claim 1 of application ('555) recites the following additional elements: a sensor adapted to determine whether air emerging from said filter system is safely breathable and a signal generator operatively associated with said sensor, adapted to generate a signal

Art Unit: 3771

indicative of whether said air emerging from said filter system is safely breathable; and a controller to open and/or close said valve in response to said signal). Thus the invention of claim 1 of the ('555) application is in effect a "species" of the "generic" invention of claim 1 of the instant invention. It has been held that the generic invention is "anticipated" by the "species". See *In re Goodman*, 29USPQ2d 2010 (Fed. Cir. 1993). Since claim 1 of the instant application is anticipated by claim 1 of application ('555), it is not patentably distinct from claim 1 of application ('555).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 1-6,10-14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4,6-16 of copending Application No. 10/675,135. Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between claim 1 of the instant application and claim 1 of application ('135) lies in the fact that claim 1 of the ('135) application more elements and is thus more specific (e.g. claim 1 of application ('135) recites the following additional elements: a switch associated with the means to move and coupled to the valve assembly adapted to control energization of the moving means in conjunction with operation of the valve assembly). Thus the invention of claim 1 of the ('135) application is in effect a "species" of the "generic" invention of claim 1 of the instant invention. It has been held that the generic invention is "anticipated" by the "species". See *In re Goodman*, 29USPQ2d 2010 (Fed. Cir. 1993). Since claim 1 of the instant application is anticipated by claim 1 of application ('135), it is

Art Unit: 3771

not patentably distinct from claim 1 of application ('135). This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-6,10,11,13,14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mucha (DE 195 03 027 A1) in view of Hilton et al. (EP 0 241 188 A1) and Freidank et al. ('970).

Re claim 1, Mucha discloses a breathing apparatus comprising: a tank (9) adapted to contain air under pressure; a filter system (7) adapted to enable ambient air to pass through a filter medium having a mesh that is sufficient to trap solid particles in ambient air and/or to enable ambient air in need of cleaning to have a residence time in contact with media that is sufficient to decontaminate contaminating vapors and gases from said ambient air to form clean air; means (8,8') adapted to move said ambient air into said filter system, through said filter medium in said filter system and thence into operative relationship with a user of the apparatus; a valve assembly (4) operatively associated with said filter system and said tank that is adapted to control the flow of cleaned air from said filter system and air from said pressure tank, conduit means (5,2) disposed between, and in operative association with, said means to move said ambient air and means (1) directly associated with the user of said apparatus through which air

Art Unit: 3771

is provided to a user of said apparatus; and control means (12) associated with said valve assembly, and adapted to control said means to move ambient air into and through the filter system (see abstract and note electrical connections between control means 12 and fans 8,8' in fig. 1). The differences between Mucha and claim 1 are regulator means operatively associated with the tank of pressurized air to enable delivery of said pressurized air to a user of said apparatus and an intended result of a user being capable of determining whether to breathe cleaned air or pressurized air by virtue of the operation of the control means. Hilton et al., in a breathing apparatus, teach a regulator means (34) to enable delivery of said pressurized gas to a user of said apparatus. The purpose of regulator means (34) of Hilton et al. is to reduce the pressure of the breathable gas leaving pressurized tank (33) so that it may be delivered to a user at a safe pressure. It would have been obvious to modify the pressurized tank of Mucha to employ a regulator means because it would have reduced the pressure of the breathable gas leaving pressurized tank so that it may be delivered to a user at a safe pressure as taught by Hilton et al.. Freidank et al., in a breathing apparatus, teach means (16,17) adapted to generate a signal that is adapted to advise a wearer whether the gas emerging from said filter system (20) has insufficient oxygen to be safely breathable for the purpose of advising a wearer that the filter system is in need of replacement. It would have been obvious to modify the controller of Mucha to include a signal to a wearer regarding the status of the filter system because it would have advised the wearer that the filter system is in need of replacement as taught by Freidank et al..

Re claim 2, Hilton et al. (fig.7) teach plural filter/decontamination elements (9).

Re claim 3, Hilton et al. (figs.4-6,8,9) teach a mask adapted to establish and maintain a seal with the face of a user so as to isolate at least the nose and mouth of said user from ambient air, and adapted to maintain a seal under conditions of positive pressure within the mask (note separate valves for exhalation and inhalation).

Re claim 4, Mucha (fig. 1) discloses a first conduit (6) between said tank (9) and said mask (1), said second conduit means (5) between said filter system (7) and said mask (1), and said at least one valve (4) operatively associated with said conduit means adapted to control the flow of cleaned air from said filter system or air from said tank to said user.

Re claim 5, Hilton et al. (figs.2,4,6) teach a plenum chamber (21) operatively associated with said tank (33) and said filter system (9) such that cleaned air from said filter system and from said tank, respectively, are adapted to respectively flow into said plenum chamber and conduit means (2) disposed between said plenum chamber and said face mask.

Re claim 6, Hilton et al. teach a one-way exhaust valve (4) operatively associated with the mask.

Re claim 10, Mucha (see abstract) discloses said control means (12) controls said moving means (8,8') in conjunction with operation of said valve assembly (4).

Re claim 11, the control means of Mucha (see abstract) operates in an automatic manner responsive to signals from sensors 10 and 11 to actuate valve assembly (4) in dependence upon the sensed signals.

Re claim 13, while Mucha discloses a single gas cylinder (9), it would have been obvious to modify the compressed gas supply by duplicating the gas cylinder as an obvious matter of design choice because it would have provided additional breathable gas to enable a wearer to use the device for a longer period of time without the need for replacement of the cylinder or breathing device.

Re claim 14, Mucha (see abstract) discloses elements (8,8') as being fans and control means (12) controlling the operation of the fans via electrical conductors (fig. 1). Official notice is taken that the driving force for electrically operated fans typically consists of an electric motor.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mucha (DE 195 03 027 A1) in view of Hilton et al. (EP 0 241 188 A1) and Freidank et al. ('970) as applied to claims 1-6,10,11,13,14 above, and further in view of Hubner ('518). The difference between Mucha as modified by Hilton et al. and Freidank et al. and claim 12 is means adapted to determine if the composition of gas emerging from said filter system comprises a sufficiently small amount of particulate matter to be safely breathable. Hubner teaches analyzing (via sensor 7, 7a-7e) an ambient atmosphere to determine if it is not breathable and notifying the user if the ambient atmosphere is not breathable for the purpose of preventing a user from breathing toxic gases by notifying the user that the filtering capacity of the filter medium is failing as well as preventing the accumulation of potentially explosive gases. It would have been obvious to modify the breathing apparatus of Mucha to include an analysis of ambient gas to determine if the ambient gas is breathable because it would have prevented a user from breathing toxic

gases by notifying the user that the filtering capacity of the filter medium is failing as well as preventing the accumulation of potentially explosive gases as taught by Hubner.

Response to Arguments

9. Applicant's arguments filed 10/06/06 have been fully considered but they are not persuasive.

10. In response to applicant's argument regarding claim 1 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a sensor to determine whether the filtered ambient air is safely breathable and means to switch to an alternate source of air and turn off the blower when the sensor provides a signal indicating that the air is not safely breathable) are not recited in the rejected claim 1. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064

Re claim 1, the functional recitation "a user can determine whether to open and/or close said valve assembly or to start or stop said means to move air in order to breathe cleaned air or pressurized air" has not been given patentable weight because it is not fully supported by corresponding structural limitation of similar scope. In order to be given patentable weight, a functional recitation must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re*

Art Unit: 3771

Fuller, 1929 C.D. 172; 388 O.G. 279. Since there is no clear structure set forth to provide the functions recited and as long as the structure of the prior art is capable of performing the recited function then the prior art anticipates claims so worded. In this case, Mucha's device as modified by Hilton et al. and Freidank et al. would provide a control means such as a regulator means taught by Hilton et al. and sensor means taught by Freidank et al., so that it would be able to allow the user to determine whether to open and/or close said valve assembly or to start or stop said means to move air in order to breathe cleaned air or pressurized air.

11. In response to applicant's argument that "the examiner has selected portions from three references to arrive at the present invention, in which, none of the references supply the motivation for any of the additional references as proposed", it is noted that in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

12. In response to applicant's argument re claim 12 that "none of the references teaches a sensor means to detect particulate matter", since the applicant's sensor means is used to determine "that the atmosphere is in danger of becoming unbreathable or contaminated" and Hubner teaches a similar sensor means 7, 7a-7e having the same function just like the applicant for analyzing an ambient atmosphere to determine if it is not breathable and notifying the user if the ambient atmosphere is not breathable for the purpose of preventing a user from breathing toxic gases by notifying

Art Unit: 3771

the user that the filtering capacity of the filter medium is failing as well as preventing the accumulation of potentially explosive gases, therefore it appears that Hubner's sensor means comprehend the claimed language.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang D. Thanh whose telephone number is (571) 272-4982. The examiner can normally be reached on Monday-Thursday & alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The Central FAX phone number for the organization where this application or proceeding is assigned is (571) 273-8300 for all communications.

Art Unit: 3771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Quang D. Thanh
Primary Patent Examiner
Art Unit 3771
(571) 272-4982